

EXAMINER'S AMENDMENT

This communication is responsive to the Request for Continued Examination filed 08/25/2010. Claims 2 and 13 have been amended by applicant. Claim 21 is hereby amended by Examiners Amendment. Claims 2, 13 and 21 are currently pending.

This application is in condition for allowance except for the presence of claims 5-8, 12, 16-18 and 20 directed to a species non-elected without traverse. Accordingly, claims 5-8, 12, 16-18 and 20 have been cancelled.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Marc Robinson on 08/30/2010.

As to claim 21, line 1 has been amended as follows, "A non-transitory computer readable storage medium...".

The following is an examiner's statement of reasons for allowance:

US PG Publication No. 2005/0168437 to Carl et al. discloses a three-dimensional pointing method, comprising: pointing at a desired point in a virtual three-dimensional

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space represented on a display apparatus based on two-dimensional coordinates on a predetermined detection plane of the display apparatus of a position that is pointed at by a pen tip of an input pen in a real three-dimensional space, (Carl, Fig. 5; pg. 6, par. 66), an inclination angle that is an angle between an axis of the input pen and the detection plane in the real three-dimensional space (Carl, Fig. 5; pg. 2, par. 12), and a direction angle that is an angle between a projection of the axis of the input pen onto the detection plane and a predetermined line on the detection plane (Carl, Fig. 5; pg. 2, par. 12, 13; pg. 6, par. 66); generating an extension of the axis of the input pen in the virtual three-dimensional space based on the inclination angle and the direction angle of the input pen in the real three-dimensional space (Carl, Fig. 5; pg. 2, par. 12, 13; pg. 6, par. 66); a pointer position/rotation angle calculation unit configured to calculate a position and a rotation angle of the pointer to be generated based on the information obtained by the input information obtaining unit (Carl, Fig. 5; pg. 2, par. 12, 13; pg. 6, par. 66), in addition to the information of the two-dimensional coordinates, the input information obtaining unit obtains an inclination angle that is an angle between an axis of the pen and a detection plane (Carl, Fig. 5; pg. 2, par. 12, 13; pg. 6, par. 66), and a direction angle that is an angle between a projection of the axis of the input pen onto the detection plane and a predetermined line on the detection plane (Carl, Fig. 5; pg. 2, par. 12, 13; pg. 6, par. 66); a computer readable storage medium including three-dimensional pointing instructions for causing a computer to execute processes in each unit of the three-dimensional pointing apparatus as claimed in claim 13 (Carl, pg. 2, par. 17; pg. 3, par. 83).

US Patent No. 6,590,573 to Geshwind discloses comprising pen pressure that is pressure applied to the pen tip of an input pen (Geshwind, col. 7, ll. 62-63), displaying a three-dimensional pointer on the display apparatus on the extension of the axis of the input pen in the virtual three-dimensional space (Geshwind, col. 7, ll. 51-63; col. 16, ll. 63-67); and changing a coordinate of the three-dimensional pointer in the direction of the extension in the virtual three-dimensional space according to the pen pressure of the input pen, and displaying the three-dimensional pointer on the display apparatus based on the changed coordinate (Geshwind, col. 7, ll. 51-63); a display apparatus to represent a generated pointer at a desired point in a virtual three-dimensional space (Geshwind, col. 7, ll. 51-63),

comprising: an input information obtaining unit configured to obtain information on a predetermined plane of the display apparatus (Geshwind, col. 2, ll. 10-17; col. 4, ll. 11-22) and a pen pressure, which is pressure applied to the pen tip of the input pen (Geshwind, col. 7, ll. 51-63); to be displayed in the virtual three-dimensional space represented on the display apparatus (Geshwind, col. 7, ll. 51-63); a pointing determination unit configured to determine whether there is an object that is pointed at by the pointer generated by the pointer generation unit in the virtual three-dimensional space represented on the display apparatus (Geshwind, col. 14, ll. 2-31; col. 14, ll. 66-col. 15, ll. 12); an object generation unit configured to generate the object to be displayed in the virtual three-dimensional space represented on the display apparatus (Geshwind, col. 4, ll. 23-35; col. 7, ll. 51-63); a display control unit configured to display

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the pointer generated by the pointer generation unit and the object generated by the object generation unit in the three-dimensional space represented on the display apparatus (Geshwind, col. 4, ll. 23-35; col. 7, ll. 51-63); calculation according to the pen pressure of the input pen in the calculation (Geshwind, col. 7, ll. 51-63); wherein the pointer position/rotation angle calculation unit changes a depth direction coordinate of the three-dimensional pointer to be displayed in the virtual three-dimensional space (Geshwind, col. 7, ll. 51-63; col. 16, ll. 63-67), sets a position of a three-dimensional pointer to be on the extension in the three-dimensional space (Geshwind, col. 7, ll. 51-63; col. 16, ll. 63-67), and performs the calculation by changing a coordinate of the three-dimensional pointer in the direction of the extension in the three-dimensional space (Geshwind, col. 7, ll. 51-63; col. 16, ll. 63-67).

As to claim 2, the prior art of record fails to teach or suggest "...generating an extension of the axis of the input pen in the real three-dimensional space in the virtual three-dimensional space, based on the inclination angle and the direction angle of the input pen in the real three-dimensional space, by extending the axis of the input pen from the real three-dimensional space into the virtual three-dimensional space...".

As to claim 13, the prior art of record fails to teach or suggest "...the pointer position/rotation angle calculation unit generates an extension of the axis of the input pen in the real three-dimensional space in the virtual three-dimensional space, based on the inclination angle and the direction angle of the input pen, by extending the axis of

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the input pen from the three-dimensional space into the virtual three dimensional space...".

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES HICKS whose telephone number is 571-270-7535. The examiner can normally be reached on Monday-Thursday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz, can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629